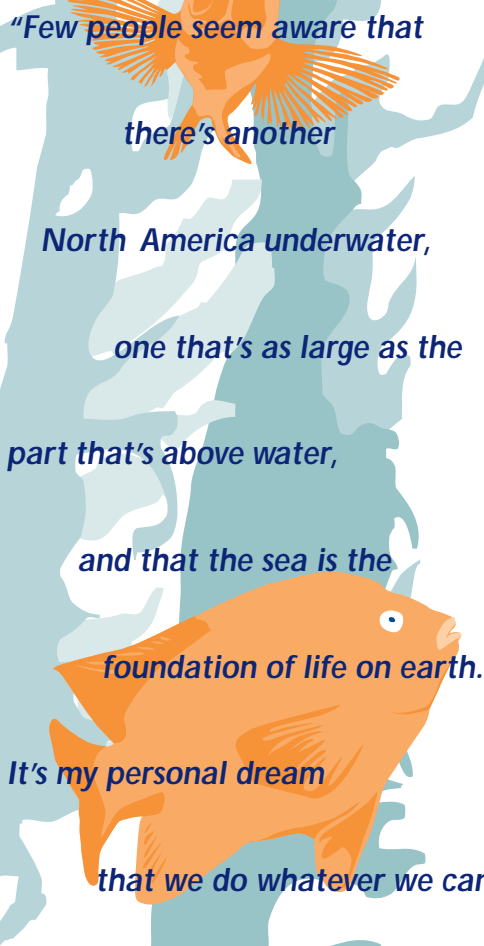


National Geographic Society's

# Sustainable Seas expeditions

in partnership with  
NOAA's National Marine Sanctuaries  
and made possible by the  
Richard & Rhoda Goldman Fund



"Few people seem aware that  
there's another  
North America underwater,  
one that's as large as the  
part that's above water,  
and that the sea is the  
foundation of life on earth.  
It's my personal dream  
that we do whatever we can  
in our lifetime to protect  
the wild ocean."

*Dr. Sylvia Earle, Project Director  
Sustainable Seas Expeditions*

## Deep Worker

### Vehicle Specifications

Length	8.25 ft. (2.4 m)	Payload	250 lbs (114 kg)
Beam	5.3 ft. (1.6 m)	Life Support	106 man hours
Height	5.75 ft (1.725 m)	Speed	3-4 knots max
Weight in air	1.3 tons	Crew	Pilot: 1
Operating Depth	2000 ft. (600 m)		

### Systems Description

Pressure hull:	38-inch sphere attached to 24-inch diameter by 36-inch long cylinder. Manufactured of A516 grade 70 steel with 316 stainless steel hatch rings. Optional aluminum alloy, or titanium hull.
Power Source:	Two 18-inch diameter battery pods, each containing 10 high-ampere, deep cycle, AGM batteries. Nominal voltage 240/24/12.
Maneuvering Control:	Two main 1 H.P. thrusters, plus two angled 1 H.P. vertical thrusters, angled sufficiently to give lateral control. 100 c.ft. ballast air provided to fill volume tank. Trim control surface by hard ballast tank.
Life Support:	Two oxygen cylinders carried externally. Two redundant, mechanical oxygen controllers with electronic monitoring (analog back-up) internal. Carbon dioxide removed via two scrubbers. Emergency breathing gas via air B1BS.
Viewing:	Single 30-inch dome which serves as entry hatch.
Sonar:	"Modified" Imaginex switchable from standard scan to ultra high resolution short range scan. Directional hydrophone.
Manipulators:	Equipped with "Newt-Arm," anthropomorphic, water powered manipulator. Standard reach 6b feet, extendable 12 feet. Multi-function, with wrist light and video standard.
Communications:	Surface VHF Sub-surface: underwater radio
Optional Equipment:	Tracking beacon, Xenon strobe, pinger, burial/excavation pumps, sampling equipment, precision laser measuring system, pipe tracker.

### Contacts

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